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EXAMINER

NGUYEN, S

ART UNIT PAPER NUMBER

2664

DATE MAILED:

10/25/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No. **09/482,054**

Applicant(s)

Examiner

Steven Nguyen

Group Art Unit 2664

Margon



| X Responsive to communication(s) filed on | |
|--|------------------------------|
| ☐ This action is FINAL . | |
| ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle35 C.D. 11; 453 O.G. 213. | |
| A shortened statutory period for response to this action is set to expire3month(s), or the longer, from the mailing date of this communication. Failure to respond within the period for responsapplication to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the state of the state | se will cause the |
| Disposition of Claim | |
| | |
| Of the above, claim(s) is/are | withdrawn from consideration |
| Claim(s) | is/are allowed. |
| | is/are rejected. |
| Claim(s) | is/are objected to. |
| ☐ Claims are subject to restriction or election requirement. | |
| Application Papers See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948. The drawing(s) filed on | |
| Attachment(s) Notice of References Cited, PTO-892 Information Disclosure Statement(s), PTO-1449, Paper No(s)6 Interview Summary, PTO-413 Notice of Draftsperson's Patent Drawing Review, PTO-948 Notice of Informal Patent Application, PTO-152 | |
| SEE OFFICE ACTION ON THE FOLLOWING PAGES | |

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DETAILED ACTION

Claim Objections

1. The numbering of claims is not accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 21-65 have been renumbered 23-67.

Claim Rejections - 35 USC § 112

- 2. The following is a quotation of the second paragraph of 35 U.S.C. 112:
 - The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 3. Claims 1-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As claim 1, lines 2-3, claim 2, 1-2, claim 6, line 2, and claim 30, line 1, the recitation "capable of" is vague and indefinite because the term has double meaning. For example, a remote may or may not perform the step of monitoring the forward and reserve channel.

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Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 5. Claims 1-3, 5-7, 19, 24-25, 32-35, 40, 46, 50, 55-57, 61 and 66 are rejected under 35 U.S.C. 102(b) as being anticipated by Kashi et al (USP 5682604).

As claim 1, 32 and 55, Kashi discloses a base station (Fig 2, Ref 10) for providing a forward channel (Fig 7, Ref 200), a remote station (Fig 2, Ref 11) for monitoring "listening or sensing" the forward channel signal and monitoring reserve channel during a clear "free" channel access interval (Fig 7, time to sense channel free) and providing reserve channel signal if it's clear "free" (Fig 7, Ref 210). See Abstract and col 1, lines 6 to col 4, lines 63.

As claim 2-3, 40 and 61, Kashi discloses a base station (fig 2, ref 10) and a remote station (Fig 2, Ref 11) inherent receive and transmit an encoded signal between them as a data packet (See Fig 4 and col 4, lines 22-37).

As claims 5-7, 33-35 and 56-57, Kashi discloses a priority and unique address of remote station (See col 4, line 22-37).

As claims 19 and 46, Kashi discloses a forward and reserve channel signal is provided during its predetermined interval (See Fig 6).

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As claims 24-25, 50 and 66, Kashi discloses a wireless communication system having frequency (fig 2).

Claim Rejections - 35 USC § 103

- 6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 7. Claims 4, 8-18, 23, 26-31, 36-39, 41-45, 49-54, 58-60, 62-63, 65 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashi in view of Heide (USP 5677909).

As claim 4 and 41, Kashi does not disclose the data packet including a digitized voice and data. Official Notice is taken that both the concept and the advantages of providing the data packet including digitized voice and data are well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the data packets including the digitized voice and data for transmitting between the base and remote station. The motivation would have been to integrate a wireless network with a wireline network such as Internet and turn the Internet into a reliable telecommunication network.

As claims 8-11, 36-37 and 60, Kashi does not disclose an address is broadcast, a semi broadcast, IP. Official Notice is taken that both the concept and the advantages of providing the address for a device is well known and expected in the art. Therefore, it would have been obvious

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to one of ordinary skill in the art at the time of the invention was made to assign an address to a remote unit.

As claims 12-14, 38-39 and 58-59, Kashi does not disclose a method of assigning a first remote station address from a first set of addresses in a first zone "cell or sector" and a second remote station address from a second set of addresses in a second zone "cell or sector"; wherein set of addresses form an Internet subnetwork. Official Notice is taken that both the concept and the advantages of assigning a different address to each remote to different zone having an Internet subnetwork are well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to assign a different address to each remote to different zone having an Internet subnetwork. The motivation would have been to easily locate the remote station in the zones.

As claims 15-18, 42-45 and 62-63, Kashi discloses each remote station having a priority parameter for accessing a clear channel interval at the predetermined time in a round robin fashion and an equal predetermined time for a clear channel assessment interval (See Abstract). However, Kashi does not disclose a clear channel internal including a predetermined time slot and each mobile monitor clear channel during its assigned time slot. In the same field of endeavor, Heide discloses a wireless system includes a base station and remote stations including a forward channel "Fig 6, downward period, broadcast period", a reservation channel "upward period" and clear assessment channel "request period".

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Since, Kashi discloses a plurality of time slots for remote station responding to global request. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a superframe which includes a downward period, upward period and request period for accessing upward period for transmitting a data packet as disclosed Heidi into Kashi's wireless communication system. Even without, Heidi's teaching, one of ordinary skill in the art would know how to divide a frame into forward, a reserve channel and clear assessment channel interval into a time slot for assigning to the remote station. This method is well known in the art.

As claims 30-31 and 53-54, Kashi does not disclose a method of transmitting a control packet for synchronizing the base station and remote station. Official Notice is taken that both the concept and the advantages of assigning a different address to each remote to different zone having an Internet subnetwork are well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to synchronize the base station and remote station. The motivation would have been to adjust a clock of the remote station to coincide with the base station.

As claims 26-29, 51-52 and 67, Kashi does not fully disclose a wireless communication system including a half, full duplex and the signals are transmitted via electrical or optical medium. Official Notice is taken that both the concept and the advantages of forward and reserve channel being half or full duplex is well known and expected in the art.

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As claims 23, 49 and 65, Kashi does not disclose a system being used in IPMA environment. Official Notice is taken that both the concept and the advantages of using Internet protocol in a wireless system is well known and expected in the art.

8. Claims 20-22, 47-48 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashi in view of Kay (USP 5299198).

As claims 20-22, 47-48 and 64, Kashi does not disclose a guard time among the forward, reserve and clear assessment channel interval. However, in the same field of endeavor, Kay discloses a guard time for the channels (See Fig 9 and 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a guard time in the position such as beginning or ending of forward, reserve and clear assessment interval as disclosed by Kay into Kashi's wireless communication. Since, a method of inserting a guard time in the positions such as a beginning or ending interval is well known in the art. So, without Kay's teaching one of ordinary skill in the art would be known how to insert a guard time to prevent an interference between the intervals.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kimbal (USP 5953322) discloses a CDMA communication system which provides an internet phone.

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Okanoue (UPS 5862345) discloses a wireless network which allows a central station assigns an IP subnetwork address to the mobile according to the subnetwork.

Wright (USP 6078568) discloses a method of dynamic access control for communication a data packet over forward and reserve channel.

Penners (USP 5793762) discloses a method of assigning an IP address to each mobile within a zone.

Arnold (USP 5905719) discloses a wireless communication for accessing internet such as voice over IP.

Giles (USP 5231634) discloses an LAN which a terminal sense a transmission medium being not busy; transmits a request to send a message to second terminal.

Ito (USP 539496) discloses a mobile terminal detecting an unused time slot on reserve channel for transmitting signals to base station which includes a guard time.

Hamalainen (USP 5729541) discloses a method of monitoring an uplink busy/idle for transmitting a data packet.

Hall (USP 5499243) discloses a method and apparatus for coordinating transfer of information between a base station and remote stations by transmitting from a remote station a request message for accessing a forward channel; the base station assigns the time slot to a mobile for using to transmitting a data packet.

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Chan (USP 5790551) discloses a method of transmitting a request message for accessing a

reserve channel to a base station and receiving a message from a base station including a traffic

channel and time slot.

Eng (USP 5963557) discloses a method and apparatus which include up, down and

control channel for coordinating transfer of information between a headend and terminals.

Gareh (USP 5481541) discloses a wireless system wherein a remote station monitoring a

reserve channel at predetermined reserver channel interval; if it is not busy, then remote station

transmits a data packet to central station.

Any inquiry concerning this communication or earlier communications from the examiner 10.

should be directed to Steven Nguyen whose telephone number is (703) 308-8848. The examiner

can normally be reached on Monday through Friday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Wellington Chin, can be reached on (703) 305-4366.

The fax phone number for this group is (703) 305-3988.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the Group receptionist whose telephone number is (703) 305-4700.

STEVEN H. D. NGUYEN

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October 12, 2000

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